Attorney's Docket No.: 14875-101001 / Applicant: Katsumi Fujimoto et al. C1-107PCT-US

Serial No.: 10/078,650

Filed : February 19, 2002

Page : 2 of 11

## Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

## Listing of Claims:

- (Currently amended) An isolated nucleic acid selected from the group consisting 1. of:
- a nucleic acid comprising the coding region of a nucleotide sequence selected (a) from the group consisting of SEQ ID NOs:1 and 11;
- a nucleic acid encoding a protein comprising an amino acid sequence selected from the group consisting of SEO ID NOs:2 and 12;
- a nucleic acid encoding a protein comprising a modified sequence of an amino acid sequence selected from the group consisting of SEQ ID NOs:2 and 12, wherein the protein encoded by said nucleic acid comprises a bHLH domain, functions as a bHLH type transcription factor, and differs from SEQ ID NO:2 or 12, respectively, by mutation at no more than 100 positions;
- a nucleic acid that (i) hybridizes in 6x SSC (0.9 M sodium chloride, 0.09 M (d) sodium citrate), 0.5% SDS, 10 mM EDTA, 5x Denhardt's solution (0.1% (w/v) Ficoll, 0.1% (w/v) polyvinylpyrrolidone, 0.1% (w/v) BSA), 10 mg/ml denatured salmon sperm DNA at 60°C [[60°]] to a probe consisting of the complement of a nucleotide sequence selected from the group consisting of SEO ID NOs:1 and 11, (ii) is at least 90% identical to SEQ ID NO:1 or 11, and (iii) encodes a protein that comprises a bHLH domain and functions as a bHLH type transcription factor; and
- a nucleic acid encoding a partial peptide of a protein selected from the group (e) consisting of SEQ ID NOs:2 and 12 that differs from the sequence of one of SEQ ID NO:2 or 12 at no more than 100 positions.

Attorney's Docket No.: 14875-101001 / Applicant: Katsumi Fujimoto et al. C1-107PCT-US

Serial No.: 10/078,650

Filed : February 19, 2002

Page : 3 of 11

2. (Currently amended) The nucleic acid of claim 1 [[1(c)]], wherein the modification referred to in part (c) is nucleic acid encodes the protein of (c), said protein of (c) comprising a sequence differing from SEQ ID NO:2 or 12 by a substitution or deletion of fewer [[less]] than 20 amino acid residues in the sequence of SEQ ID NO:2 or 12.

- 3. (Currently amended) The nucleic acid of claim 1 [[1(c)]] wherein the modification referred to in part (c) is nucleic acid encodes the protein of (c), said protein of (c) comprising a sequence differing from SEO ID NO:2 or 12 by a conservative substitution of one or more amino acids in the sequence of SEQ ID NO:2 or 12.
- (Currently amended) The nucleic acid of claim 1 [[1(c)]], wherein the 4. modification referred to in part (c) is nucleic acid encodes the protein of (c), said protein of (c) comprising a sequence differing from SEQ ID NO:2 or 12 by an addition of one or more amino acids to the sequence of SEQ ID NO:2 or 12 that results in a fusion protein.
  - 5. (Original) A vector into which the nucleic acid of claim 1 is inserted.
  - (Previously presented) A transformant cell carrying the nucleic acid of claim 1. 6.
  - 7. (Canceled)
- 8. (Withdrawn) A method for producing a protein or peptide encoded by the nucleic acid of claim 1, comprising the steps of:
- culturing a transformant carrying the nucleic acid of claim 1 or a vector into (a) which the nucleic acid of claim 1 is inserted;
  - allowing the transformant to express the protein or peptide; and (b)
- recovering the expressed protein or peptide from the transformant or culture (c) supernatant.

Attorney's Docket No.: 14875-101001 / Applicant: Katsumi Fujimoto et al. C1-107PCT-US

Serial No.: 10/078,650

Filed : February 19, 2002

Page : 4 of 11

9. (Previously presented) An isolated nucleic acid comprising at least 15 nucleotides, wherein the nucleic acid is completely complementary (a) to at least a portion of a nucleotide sequence comprising a sequence selected from the group consisting of SEQ ID NOs:1 and 11 that includes the translation initiation codon of SEQ ID NO:1 or 11, respectively, or (b) to the complementary strand of (a).

(Previously presented) An isolated nucleic acid that has a homology of at least 10. 70% to the sequence of SEQ ID NO:1 or 11 and encodes a polypeptide that comprises a bHLH domain and functions as a bHLH type transcription factor.

## 11. - 14. (Canceled)

- (Previously presented) A transformant cell carrying the vector of claim 5. 15.
- (Previously presented) The nucleic acid of claim 1, wherein the nucleic acid 16. comprises the coding region of a nucleotide sequence selected from the group consisting of SEQ ID NOs:1 and 11.
- (Previously presented) The nucleic acid of claim 1, wherein the nucleic acid 17. encodes a protein comprising an amino acid sequence selected from the group consisting of SEQ ID NOs:2 and 12.
- 18. (Previously presented) The nucleic acid of claim 1, wherein the nucleic acid encodes a protein consisting of an amino acid sequence selected from the group consisting of SEQ ID NOs:2 and 12.
- (Previously presented) An isolated nucleic acid that encodes a polypeptide 19. comprising a bHLH domain of a protein selected from the group consisting of SEQ ID NOs:2 and 12.